

IN THE CLAIMS:

Claims 4 and 12 were previously cancelled. Claims 1 and 21 have been amended herein. New claims 24 and 25 are presented herein. All of the pending claims are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of the Claims:

1. (Currently amended) An animal feed suitable for feeding a gestating animal and which improves the fertility of an animal fed said animal feed, which feed comprises an amount of lysine and the following amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;

threonine: >0.60;

tryptophan: >0.15; and

arginine: >1.5,

wherein a daily dosage of more than 200 mg arginine per kg body weight of the gestating animal (kgbw) is provided upon feeding.

2. (Previously presented) The animal feed of claim 1, which feed is enriched in arginine, such that a dosage of up to 1300 mg / (kgbw day) arginine is provided upon feeding.

3. (Previously presented) The animal feed of claim 1, which contains from 1.25 to 10 wt% arginine.

4. (Cancelled).

5. (Previously presented) The animal feed of claim 3, comprising arginine in an amount relative to the amount of lysine (w/w) of more than 2.25.

6. (Previously presented) The animal feed of claim 1, comprising one or more amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: 0.55-0.70;
threonine: 0.60-0.80; and
tryptophan: 0.15-0.25.

7. (Previously presented) The animal feed of claim 1, wherein the amount of lysine in the animal feed is below 0.8 wt.%.

8. (Previously presented) The animal feed of claim 1, further comprising an amount of Ca^{2+} below 1.0 wt%.

9. (Previously presented) The animal feed of claim 1, wherein the arginine is selected from the group consisting of synthetic arginine, arginine rich polypeptide, arginine rich protein, and mixtures thereof.

10. (Previously presented) A premix containing arginine in a sufficient amount, upon mixing with feed, to produce an animal feed suitable for feeding a gestating animal and which improves the fertility of an animal fed said animal feed, said animal feed being enriched in arginine such that a daily dosage of more than 200 mg arginine per kg body weight of the gestating animal is provided upon feeding, which animal feed comprises an amount of lysine and the following amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;
threonine: >0.60; and
tryptophan: >0.15.

11. (Withdrawn) A method for increasing the breeding productivity of an animal, said method comprising:

providing the animal feed of claim 1 in a diet to at least one gestating animal resulting in a daily dosage of from more than 200 to 1300 mg arginine per kg body weight of said at least one gestating animal.

12. (Cancelled)

13. (Withdrawn) The method according to claim 11, wherein the feeding takes place during critical periods for placental angiogenesis.

14. (Withdrawn) The method according to claim 11, wherein said feeding takes place during periods of placental angiogenesis and growth.

15. (Withdrawn) The method according to claim 11, wherein said feeding takes place during the perinatal period of gestation.

16. (Withdrawn) The method according to claim 11, wherein the animal is a pig and the feeding takes place at days 14-30 of gestation.

17. (Withdrawn) The method according to claim 16, wherein the feeding also takes place at days 105-115 of gestation.

18. (Withdrawn) The method according to claim 11, wherein the animal is a pig and the diet is provided at days 14-30 of gestation.

19. (Withdrawn) The method according to claim 18, wherein the diet is also provided at days 105-115 of gestation.

20. (Original) The animal feed of claim 1, which animal feed is enriched in arginine, such that a dosage of 250 - 650 mg / (kgbw day) arginine is provided upon feeding.

21. (Currently amended) A feed, for feeding a gestating animal, with an amount of the amino acids lysine, methionine, cysteine, threonine, tryptophan, and arginine, wherein the amount consists essentially of lysine and the following amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;
threonine: >0.60;
tryptophan: >0.15; and
arginine: >1.5,

wherein a daily dosage of more than 200 mg arginine per kg body weight of the gestating animal is provided upon feeding, wherein the feed contains from 1.25 to 10 wt% arginine.

22. (Withdrawn) A method for increasing the breeding productivity of a gestating sow, the method comprising:

providing the animal feed of claim 1 to the gestating sow so as to result in a daily dosage of from more than 200 to 1300 mg arginine per kg body weight of the gestating sow, wherein the animal feed contains from 1.25 to 10 wt% arginine, and further wherein providing the animal feed to the gestating sow takes place during periods of placental angiogenesis and growth.

23. (Withdrawn) A method for increasing the breeding productivity of a gestating sow, the method comprising:

providing the animal feed of claim 1 in an amount so as to provide an amount of the amino acids lysine, methionine, cysteine, threonine, tryptophan, and arginine to the gestating sow in the animal feed, wherein the amount consists essentially of lysine and the following amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;
threonine: >0.60;
tryptophan: >0.15; and
arginine: >1.5,

so as to provide the gestating sow a daily dosage of from more than 200 to 1300 mg arginine per kg body weight and thus increase the gestating sow's breeding productivity, wherein the animal feed contains from 1.25 to 10 wt% arginine.

24. (New) A feed, for feeding a gestating animal, with an amount of the amino acids lysine, methionine, cysteine, threonine, tryptophan, and arginine, wherein the amount consists essentially of lysine and the following amino acids in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;
threonine: >0.60;
tryptophan: >0.15; and
arginine: >2.25,

wherein a daily dosage of more than 200 mg arginine per kg body weight of the gestating animal is provided upon feeding, wherein the feed contains from 1.25 to 10 wt% arginine.

25. (New) A premix containing arginine in a sufficient amount, upon mixing with feed, to produce an animal feed for feeding a gestating sow, wherein the animal feed has an amount of lysine, methionine, cysteine, threonine, tryptophan, and arginine, and wherein the amount consists essentially of lysine and the following in an amount relative to the amount of lysine (w/w) in the following ranges:

total methionine + cysteine: >0.55;
threonine: >0.60;
tryptophan: >0.15; and
arginine: >2.25,

wherein a daily dosage of more than 200 mg arginine per kg body weight of the gestating sow is provided upon feeding the gestating sow with the animal feed, and wherein the premix contains from 1.25 to 10 wt% arginine.